

Exploring the Extreme			
2006 Science			
Program of Studies			
Kentucky Science			
Grades K-3			
Activity/Lesson	State	Standards	
Finding the Center of Gravity Using Rulers	KY	SCI.K-3.SC-P-STM-S-2	use appropriate tools (e.g., balance, metric ruler, thermometer, graduated cylinder) to measure and record length, width, volume, temperature and mass of material objects and to answer questions about objects and materials
Finding the Center of Gravity Using Rulers	KY	SCI.K-3.SC-P-MF-U-2	forces (pushes or pulls) can cause objects to start moving, go faster, slow down, or change the direction they are going.
Finding the Center of Gravity Using Rulers	KY	SCI.K-3.SC-P-MF-S-3	make qualitative (e.g., hard, soft, fast, slow) descriptions of pushes/pulls and motion
Finding the Center of Gravity Using Rulers	KY	SCI.K-3.SC-P-UD-S-7	ask questions that can be investigated, plan and conduct 'fair tests,' and communicate (e.g., write, draw, speak, multi-media) findings to others
Finding the Center of Gravity Using Plumb Lines	KY	SCI.K-3.SC-P-STM-S-5	observe and predict the properties of material objects
Finding the Center of Gravity Using Plumb Lines	KY	SCI.K-3.SC-P-STM-S-6	work with others to investigate questions about properties of materials, documenting and communicating observations, designs, procedures and results
Finding the Center of Gravity Using Plumb Lines	KY	SCI.K-3.SC-P-MF-U-2	forces (pushes or pulls) can cause objects to start moving, go faster, slow down, or change the direction they are going.
Changing the Center of Gravity Using Moment Arms	KY	SCI.K-3.SC-P-STM-S-2	use appropriate tools (e.g., balance, metric ruler, thermometer, graduated cylinder) to measure and record length, width, volume, temperature and mass of material objects and to answer questions about objects and materials
Changing the Center of Gravity Using Moment Arms	KY	SCI.K-3.SC-P-STM-S-6	work with others to investigate questions about properties of materials, documenting and communicating observations, designs, procedures and results
Changing the Center of Gravity Using Moment Arms	KY	SCI.K-3.SC-P-MF-U-6	discovering patterns through investigation/observation allows predictions, based on that evidence, to be made about future events.
Changing the Center of Gravity Using Moment Arms	KY	SCI.K-3.SC-P-MF-S-4	use tools (e.g., timer, meter stick, balance) to collect data about the position and motion of objects in order to predict changes resulting from pushes and pulls
Exploring the Extreme			

2006 Science			
Program of Studies			
Kentucky Science			
Grade 4			
Activity/Lesson	State	Standards	
Finding the Center of Gravity Using Rulers	KY	SCI.4.SC-4-EU-U-5	a model of something can never be exactly like the real thing, but can be used to learn something about the real thing.
Finding the Center of Gravity Using Rulers	KY	SCI.4.SC-4-ET-U-6	seeing how a model works after changes are made to it may suggest how the real thing would work if the same thing were done to it.
Finding the Center of Gravity Using Plumb Lines	KY	SCI.4.SC-4-MF-U-1	an object's motion can be described as its change in position over time and can be represented in a variety of ways.
Finding the Center of Gravity Using Plumb Lines	KY	SCI.4.SC-4-EU-U-5	a model of something can never be exactly like the real thing, but can be used to learn something about the real thing.
Changing the Center of Gravity Using Moment Arms	KY	SCI.4.SC-4-MF-U-1	an object's motion can be described as its change in position over time and can be represented in a variety of ways.
Changing the Center of Gravity Using Moment Arms	KY	SCI.4.SC-4-EU-U-5	a model of something can never be exactly like the real thing, but can be used to learn something about the real thing.
Changing the Center of Gravity Using Moment Arms	KY	SCI.4.SC-4-ET-U-6	seeing how a model works after changes are made to it may suggest how the real thing would work if the same thing were done to it.
Exploring the Extreme			
2006 Science			
Program of Studies			
Kentucky Science			
Grade 5			
Activity/Lesson	State	Standards	
Jet Propulsion	KY	SCI.5.SC-5-EU-U-4	air is free to move from place to place all across the planet and this movement causes global weather patterns. Observing air movements help scientists explain both global and local weather patterns
Jet Propulsion	KY	SCI.5.SC-5-EU-U-5	observations, models and diagrams of the solar system illustrate the position and relationship of the Earth, sun and moon within the larger system of planets and other celestial bodies. Even though they are all parts of the same system, a comparison of their properties reveals great differences among celestial bodies.
Vectoring	KY	SCI.5.SC-5-STM-S-3	keep accurate records of investigations (procedures, data) in order to support or dispute conclusions

Exploring the Extreme			
2006 Science			
Program of Studies			
Kentucky Science			
Grade 6			
Activity/Lesson	State	Standards	
Vectoring	KY	SCI.6.SC-6-STM-S-8	plan, present and support information from investigations using a variety of modes
Center of Gravity, Pitch, Yaw	KY	SCI.6.SC-6-STM-S-8	plan, present and support information from investigations using a variety of modes
Exploring the Extreme			
2006 Science			
Program of Studies			
Kentucky Science			
Grade 7			
Activity/Lesson	State	Standards	
Vectoring	KY	SCI.7.SC-7-STM-S-3	generate investigable questions and conduct experiments or non-experimental research to address them
Exploring the Extreme			
2006 Science			
Program of Studies			
Kentucky Science			
Grade 8			
Activity/Lesson	State	Standards	
Jet Propulsion	KY	SCI.8.SC-8-EU-S-4	discuss and identify the strengths and limitations of a variety of physical and conceptual scientific models
Vectoring	KY	SCI.8.SC-8-EU-S-4	discuss and identify the strengths and limitations of a variety of physical and conceptual scientific models
Center of Gravity, Pitch, Yaw	KY	SCI.8.SC-8-EU-S-4	discuss and identify the strengths and limitations of a variety of physical and conceptual scientific models